

Application No.: 10/500525

Case No.: 57402US004

REMARKS

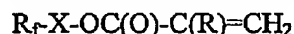
Claims 1 – 12 are pending.

Rejections Under 35 U.S.C. § 102

Claims 1 – 8 and 11 – 12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,162,369 ("Allewaert"). The rejection is respectfully traversed for the following reasons.

The present invention is drawn to a method of treating a non-woven substrate or textile. The method comprises applying to a non-woven substrate or textile a fluorochemical composition comprising a fluoropolymer that comprises:

- (a) between 10 and 97 mole% of units that can be derived from fluorinated monomer selected from the group consisting of monomers according to the general formula:



wherein  $R_f$  represents a perfluorinated aliphatic group having 3 or 4 carbon atoms, X is an organic divalent linking group, and R represents hydrogen or a lower alkyl group having 1 to 4 carbon atoms;

- (b) between 3 and 75 mole% of units derived from a chlorine containing comonomer selected from the group consisting of vinylidene chloride, vinyl chloride and mixtures thereof; and  
(c) optionally further units derived from monomers other than a fluorinated monomer and said chlorine containing comonomers;

wherein the amount of units (a), (b) and (c) adding up to 100%,

The fluorochemical composition is an aqueous emulsion and is applied in such amount that the weight of fluoropolymer on said non-woven substrate or textile is not more than 3% by weight based on the weight of said non-woven substrate or textile.

Allewaert teaches a method for preparing a fluorochemical composition comprising a polyurethane. The method comprises reacting (a) a hydroxy- or amino- functional fluorochemical oligomer of the formula  $M^f_m M_n-Q-T$ , (b) a difunctional compound, (c) a monofunctional compound comprising a polyoxyalkylene group, and (d) triisocyanate. The resulting composition can impart good stain release properties to substrates (e.g., fabrics) treated with the composition.

Application No.: 10/500525

Case No.: 57402US004

Allewaert therefore teaches that a fluorochemical oligomer must be further reacted into polyurethane in order to provide good stain release properties. In Allewaert, a composition comprising the polyurethane is applied to a substrate to impart stain release properties. Allewaert does not teach or suggest, however, using a fluorochemical oligomer itself to provide good oil and water repellency properties. Allewaert does not teach or suggest applying a composition comprising a fluorochemical oligomer to impart oil and water repellency.

In the present invention, Applicants have discovered that a fluorochemical oligomer itself can give good oil and water repellency properties. Applicants teach applying a composition comprising the fluorochemical oligomer to impart oil and water repellency.

In view of the foregoing, the present invention is novel and patentable over Allewaert. Applicants therefore respectfully request that the rejection under 35 U.S.C. § 102(b) be withdrawn.

#### **Rejections Under 35 U.S.C. § 103**

Claim 9 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Allewaert as applied to claim 1 in view of U.S. Patent No. 5,441,056 ("Weber"). Claim 10 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Allewaert as applied to claim 1 in view of U.S. Patent No. 6,048,952 ("Behr"). These rejections are respectfully traversed for the following reasons.

Neither Weber nor Behr cure the deficiencies of Allewaert discussed above. Therefore, claim 9 is patentable over Allewaert in view of Weber, and claim 10 is patentable over Allewaert in view of Behr. Applicants respectfully request that the rejections under 35 U.S.C. § 103(b) be withdrawn.

#### **Concluding Remarks**

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration and allowance of Applicants' claims is respectfully requested.

Application No.: 10/500525

Case No.: 57402US004

Respectfully submitted,

Sept. 19, 2008  
Date

By: L. P. Fulton

Lisa P. Fulton, Reg. No.: 55,195

Telephone No.: 651-733-1260

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833